

ABSTRACT

With the intention of reducing power consumption and noise, there is provided a binary refrigeration unit which can be started even by a compressor equipped with a small-torque and compact motor. The binary refrigeration unit is constructed in such a manner that an evaporator 4 of a high-temperature side refrigerant circuit H and a condenser 12 of a low-temperature side refrigerant circuit L are disposed side by side, a refrigerant of the low-temperature side refrigerant circuit L is cooled to be condensed at the condenser 12 by vaporization heat of a refrigerant of the high-temperature side refrigerant circuit H evaporated by the evaporator 4, the condensed refrigerant of the low-temperature side refrigerant circuit L is evaporated at an evaporator 14, and accordingly a low temperature much lower than a low temperature obtained by the evaporator 4 is obtained by the evaporator 14. A refrigerant tank 7 is connected to a low-pressure side which is a suction side of a compressor 1 of the high-temperature side refrigerant circuit H through a connecting pipe 6 by interposing a capillary tube 5.